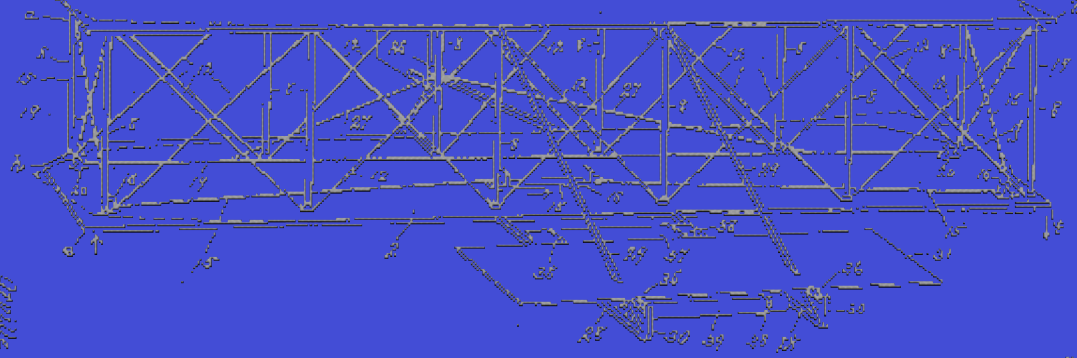
Panel on Increasing Aerospace Technology Contributions to a National Innovation System



Stephen A. Merrill, Moderator
Science, Technology, and Economic Policy Board
The National Academies

Conference on the Second Century of Flight: Challenges and Opportunities
NASA's Aerospace Technology Enterprise
June 11, 2003

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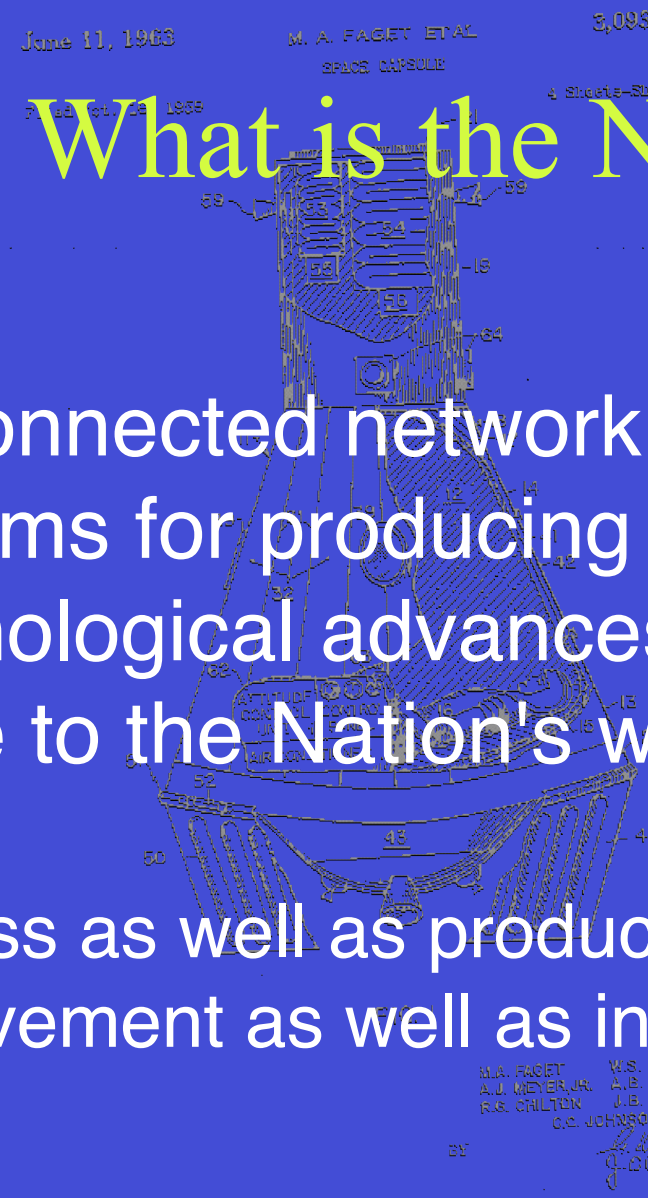
Advisers to the Nation on Science, Engineering, and Medicine

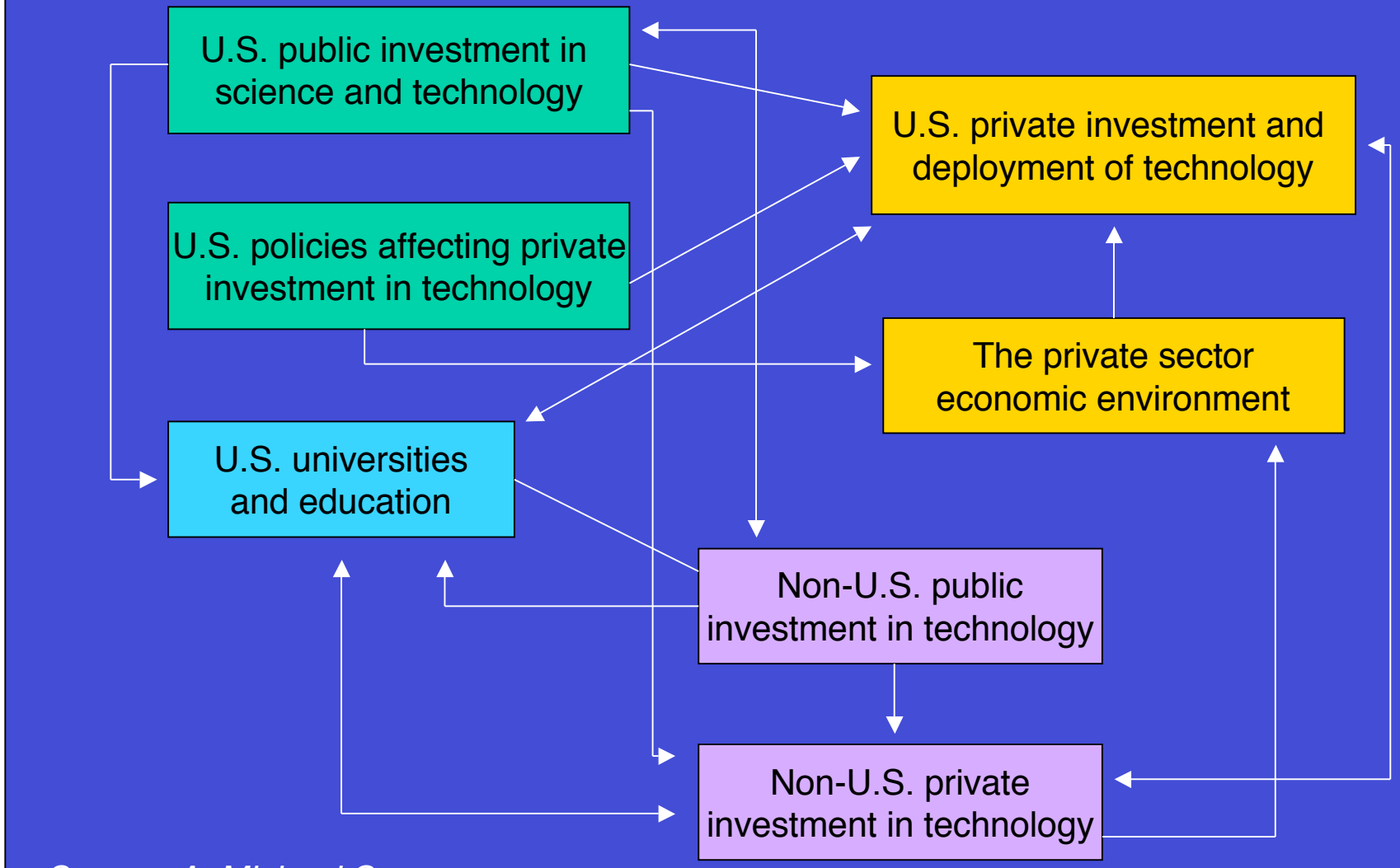
What is the NIS?



An interconnected network of mechanisms for producing the scientific and technological advances that contribute to the Nation's well being

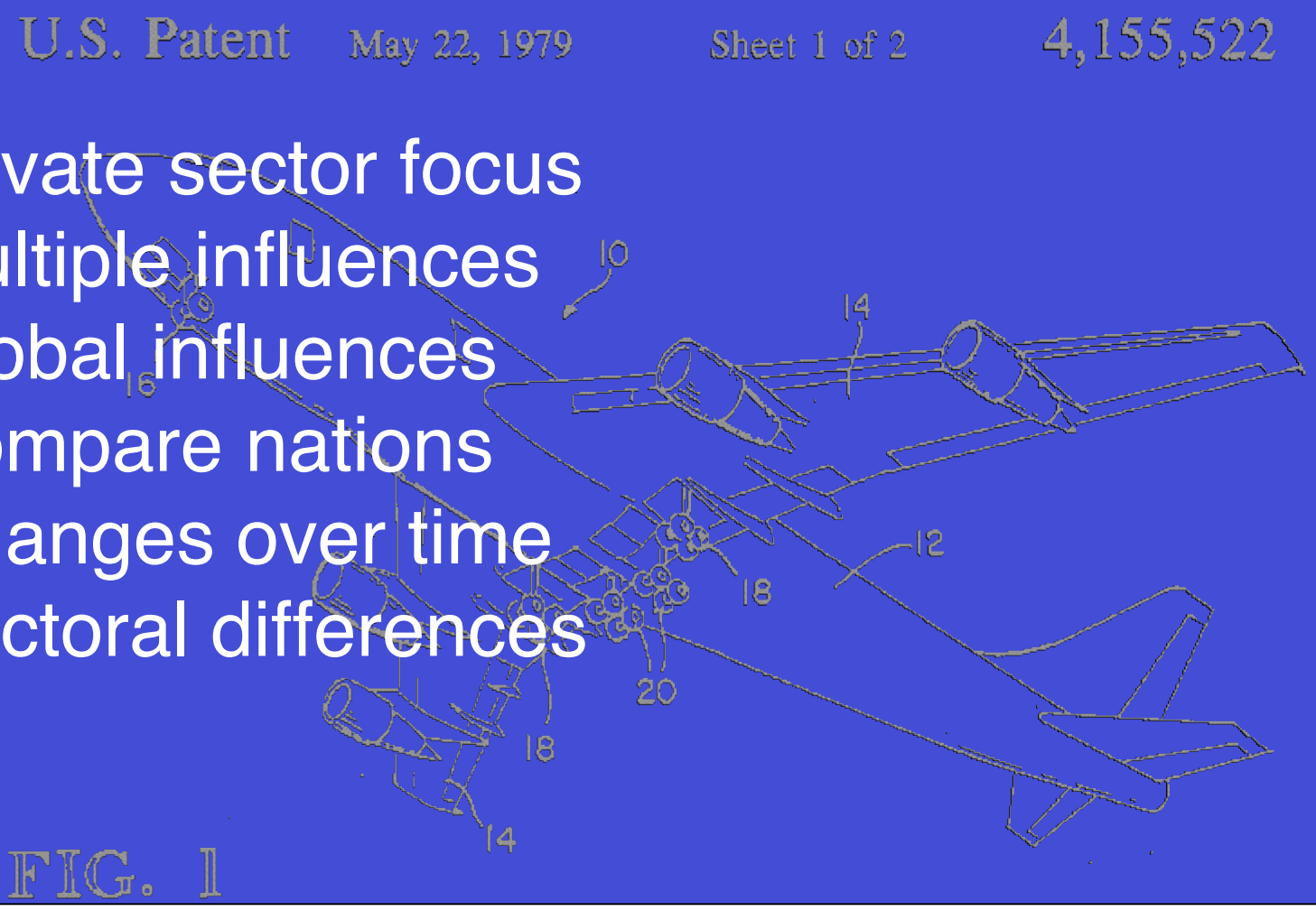
- Process as well as product
- Improvement as well as invention

Elements of the Innovation System



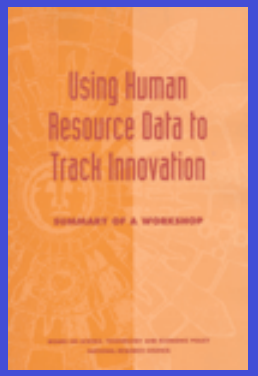
Source: A. Michael Spence

What is the Utility of NIS Concept?



- Private sector focus
- Multiple influences
- Global influences
- Compare nations
- Changes over time
- Sectoral differences

U.S. Industrial Resurgence



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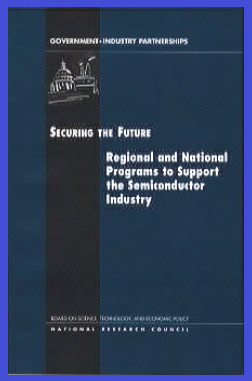
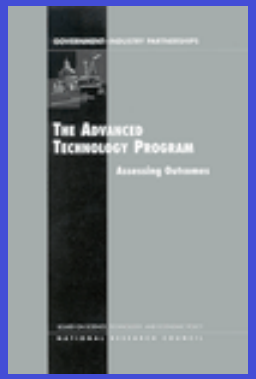
Government-Industry Partnerships





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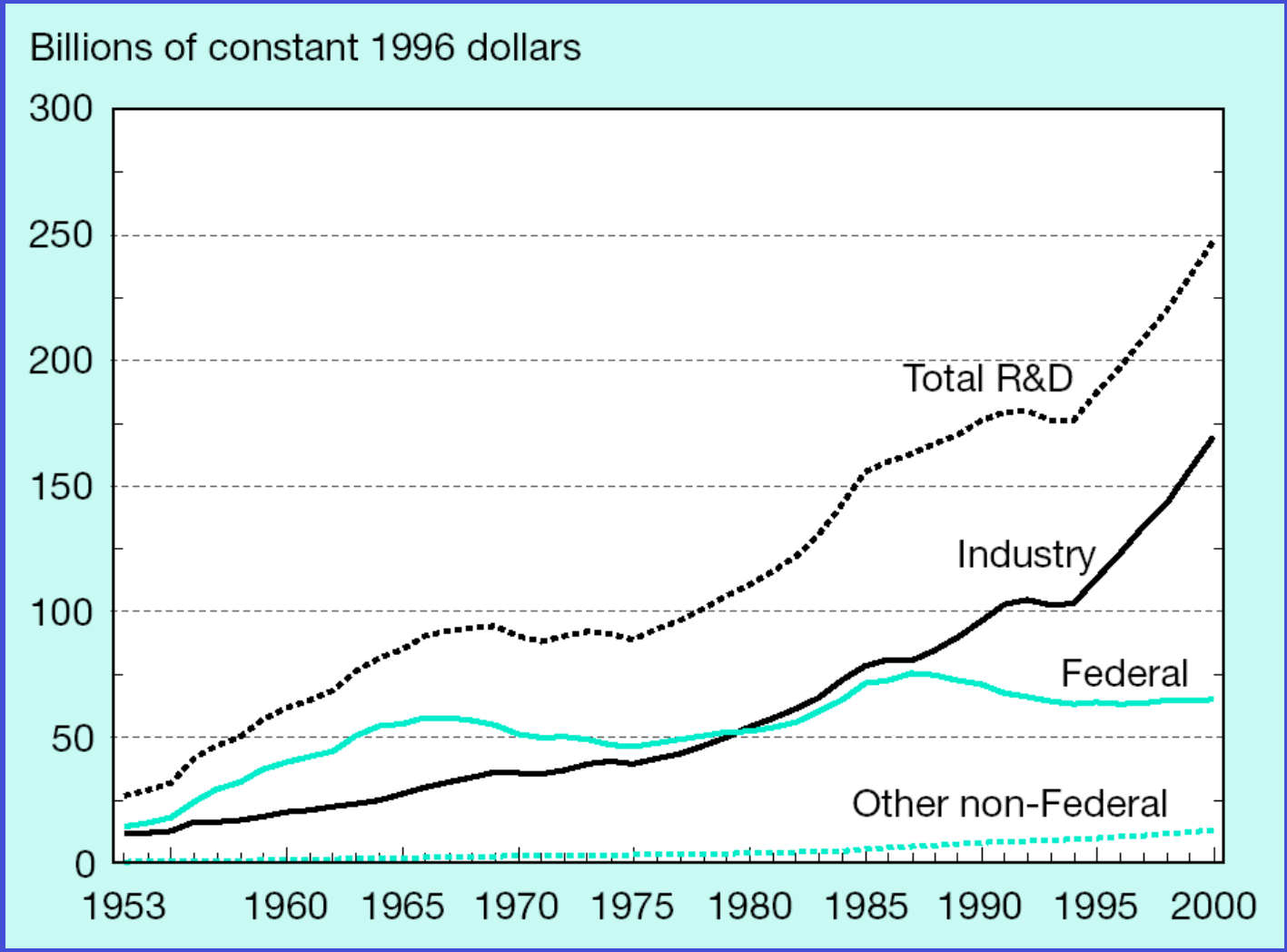
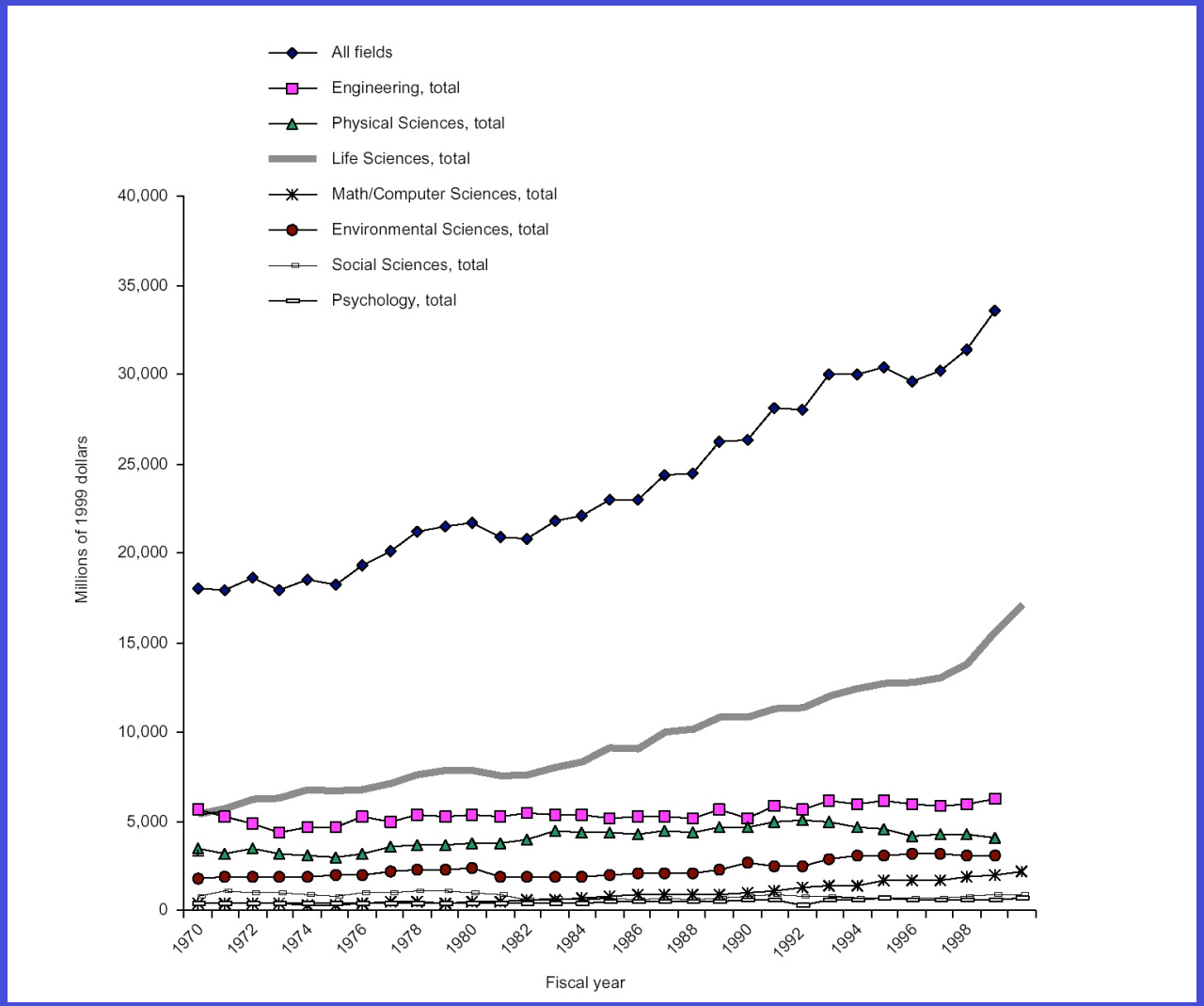
Change: Industrial Reorganization and Resurgence

National R&D Funding, by source: 1953-2000

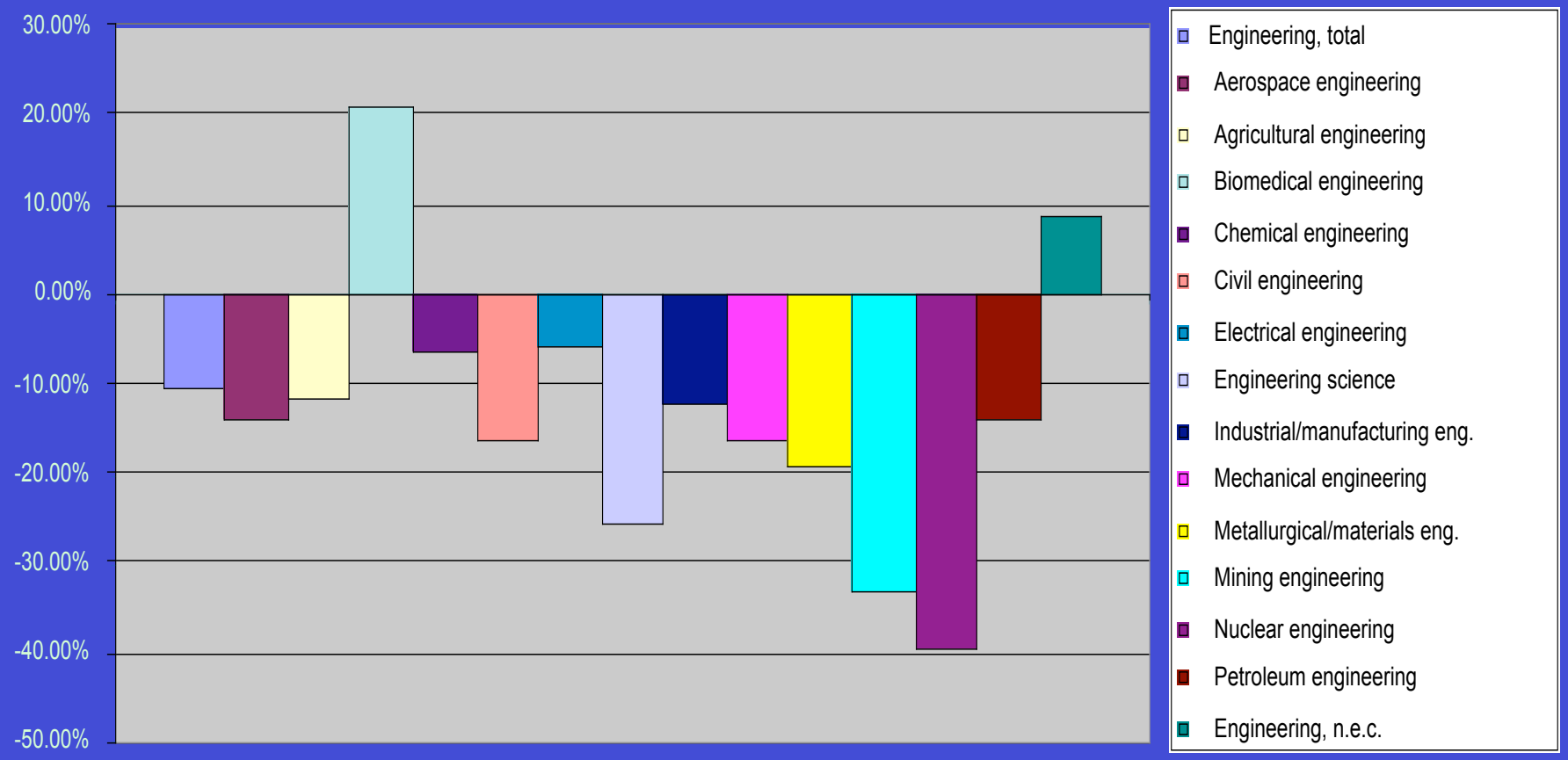


Change: Shift in the Federal R&D Portfolio



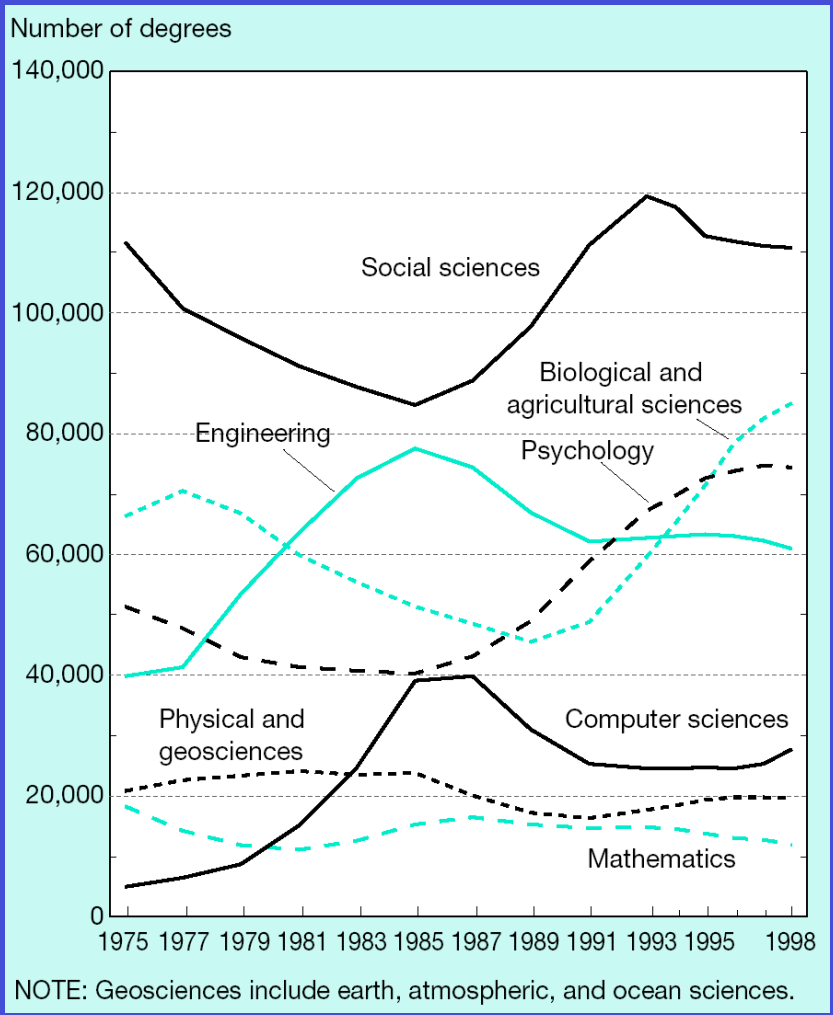
Change: Declining Production of Domestic S&E Talent

Graduate Students in Engineering by Field, % Change 93-00



Change: Declining Production of Domestic S&E Talent

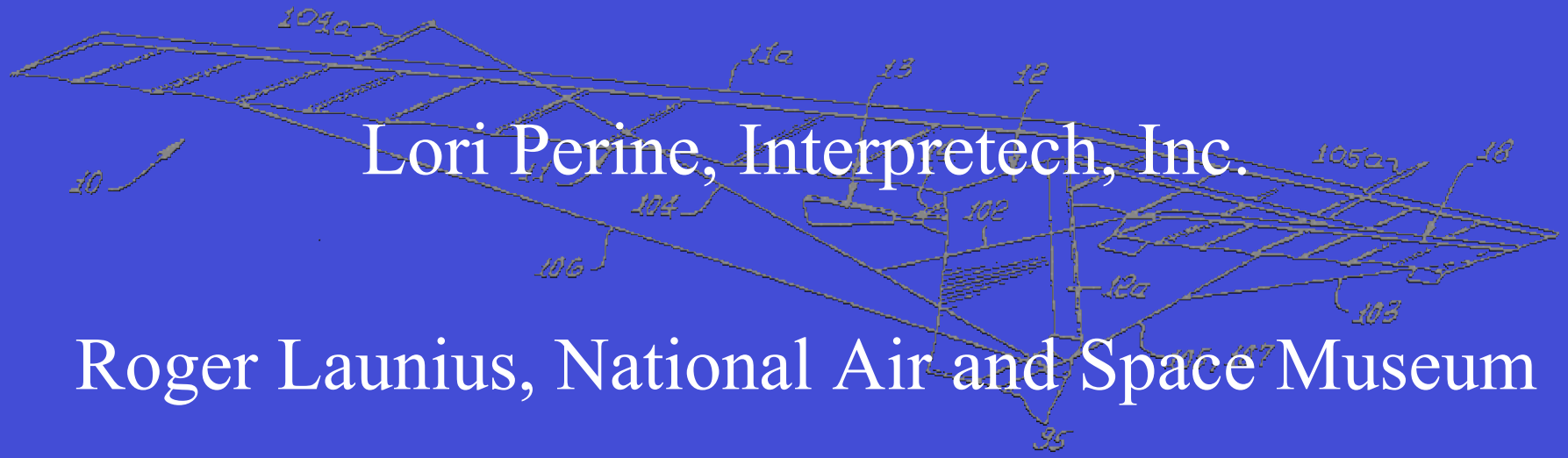
Bachelor's Degrees Earned in Selected S&E Fields



NOTE: Geosciences include earth, atmospheric, and ocean sciences.

Panel

Mark Myers, Wharton School



Lori Perine, Interpretech, Inc.

Roger Launius, National Air and Space Museum